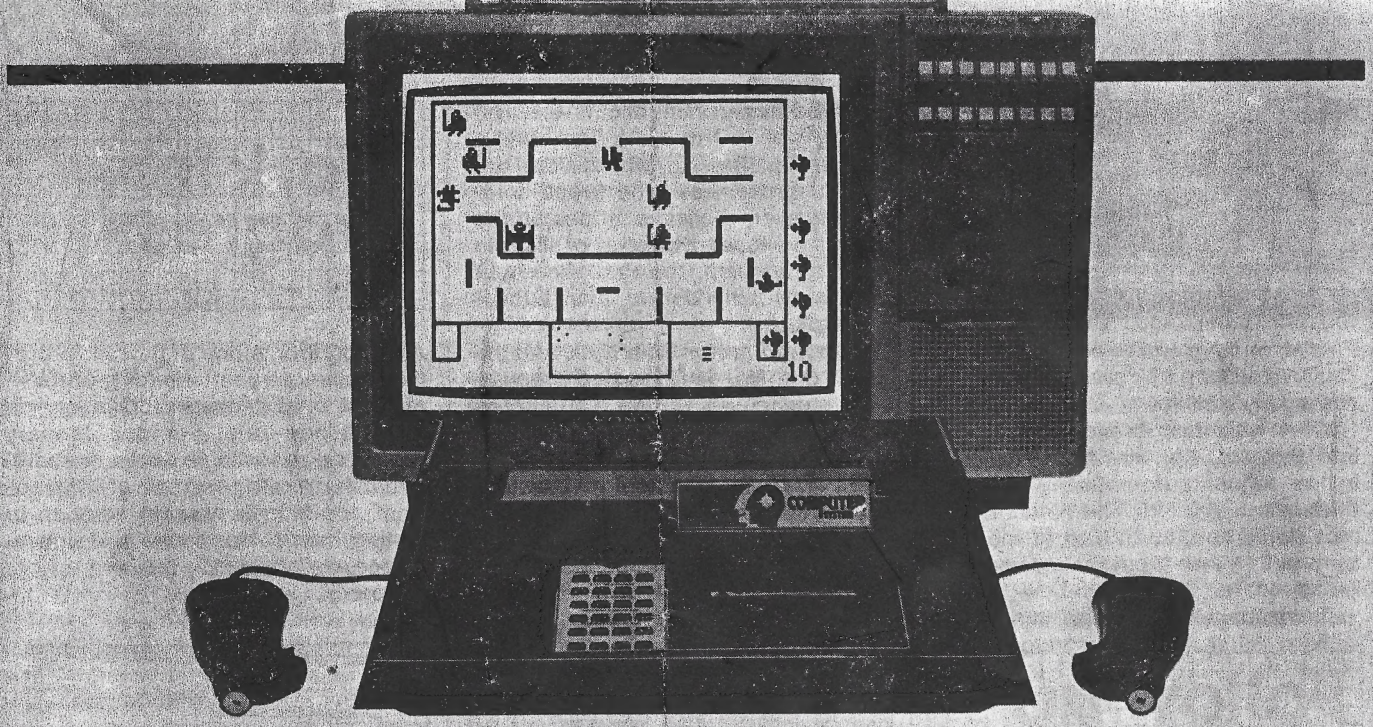


Video games

After testing four video-game machines and 76 cartridges, we have our favorites. The list may surprise you.

An army of Imperial Walkers, bent on destruction, is marching toward your power generator on the Ice Planet Hoth. You must destroy them with your missile-firing Snowspeeder.

Or, you are trapped in a maze. Robots, spiders, and bats relentlessly track you down. You must shoot them with your trusty six-shooter before they get you.

The pervasive theme in home video games is aggression. It's kill or be killed. Someone or something—a space creature with an ugly disposition, or a large and toothy reptile that wants to include you on its menu, or a cold-eyed gunslinger who objects to the tilt of your 10-gallon hat—is out to get you. To survive, you must do unto others before they can do unto you.

Games of chase, capture, and military strategy are woven into the fabric of our culture. Consider ring-a-levio, cops and robbers, cowboys and Indians. Consider football, a game in which two armies of padded huskies do physical battle to attack and defend yards of territory. Consider even chess, that cerebral metaphor for war.

If video games haven't created aggression as a recreational theme, they have certainly added to the sound and fury with vivid graphic displays and sound effects programmed to greet the destruction of friend and foe alike. Those TV commercials of families squirming in competitive agony hardly exaggerate the emotional reality of the best (or is it the worst?) of these games.

We'll leave to others the psychological and sociological meaning of the video-game craze. The economic meaning is clear enough. Some $5-billion in quarters fed arcade video games last year. And home video games—the machines themselves and the cartridges bought separately—are a market that may reach $1.7-billion this year. (CU's publication for young people, Penny Power, recently polled 10- to 12-year-old readers to find out how they spend their money. Half of those who knew how much they were spending reported dropping $2 or more each week into the arcade games. Some 10 percent spend $5 or more each week.)

The home video-game craze is a direct outgrowth of the video arcades, where youngsters have been joined by briefcase-toting executives, all feeding quarters to multicolored machines that flash and burp and bang. Addiction can set in rapidly. Millions of game junkies (or their parents) are buying home versions of the arcade games to hook up to their TV sets. The cost can be steep—upward of $200 for the machine alone, plus some $20 to $30 for each game—but it should save many of those quarters.

Gone are the simple home video games that we reported on in 1977. Current machines have microprocessor "brains" that endow them with computerlike speed and sophistication. When we began our testing last summer, four machines held most of the market: The *Astrocade*, the *Atari VCS*, the *Mattel Intellivision*, and the *Odyssey* 2. We bought and tested all four. (The box on page 548 gives a rundown on a promising new machine, Coleco's *Colecovision*, which was introduced too late for us to test fully.)

To stave off monotony, the makers of the machines and independent manufacturers market a variety of game cartridges, and new game cartridges appear constantly. You change games by inserting a different game cartridge, much as you'd change musical selections in a cassette tape player. The *Atari*, the *Intellivision*, and the *Odyssey* 2 come to life only after you insert a cartridge; the *Astrocade* has several built-in games as well.

Each machine comes with at least two hand controllers, each with a joystick, knob, or some other way to control the play. Controls on each machine's console let you select from various game formats and skill levels. The machine plugs into a wall outlet, so there are no batteries to worry about.

Measuring the fun quotient

After checking that all the machines and cartridges were working properly, we distributed our samples to a test panel consisting of CU staffers and children. Most of the panelists frequent video-game arcades, so they knew the ropes.

For each machine, we selected eight typical game cartridges, including some adaptations of current arcade games. Each panelist spent two evenings with each machine and its eight games, and then filled out a questionnaire. After evaluating all four machines, panelists filled out a final questionnaire that asked which machine and which games they liked most and least.

Meanwhile, testers—electronics engineers and technicians—were trying out a host of other game cartridges in CU's laboratory to get an idea of what the games offered. As a backup, our testers also played the games that the panelists had evaluated.

A video game should give the player precise, consistent control of the action, we think. Objects on the screen should move smoothly, without machinelike jerkiness. The graphics should suggest animated cartoon characters, not stick-figures. And the sounds should be appropriate to the action and amusing or exciting, rather than simplistic beeps and buzzes.

A typical game pits you against the machine itself. Some of the games, especially those based on sports, let you compete directly against another player. Most of the popular games have a feature that helps prevent boredom: The longer you play or the higher your score, the harder the game becomes. Another desirable feature is a choice of skill levels. At the easiest level, there may be fewer hazards, or the game's action may be slower. As your skill improves, you can set the game to progress to more-difficult skill levels.

On the pages that follow, we discuss the four machines in alphabetical order. We also discuss, for each machine, the eight games that our panelists evaluated—and we give capsule summaries of other games, including some from independent manufacturers. The games, too, are in alphabetical order. In all instances, prices are as quoted by the manufacturer but they're generally discounted by 20 to 25 percent. Cartridge makers are noted where they are different from the maker of the console.

Astrocade: Superior graphics and sounds

Formerly sold as the *Bally Professional Arcade*, the *Astrocade* ($300) currently offers a selection of about 25 games—fewer than the *Atari* or the *Intellivision*. Several panelists noted that drawback. Nevertheless, the *Astrocade* was the panelists' clear favorite among the four machines.

The *Astrocade* provides detailed, colorful graphics and versatile sound effects. Its unique controllers are shaped like pistol grips: You fire with a trigger while using your other hand to move a stubby rotary control knob that doubles as a joystick. Panelists found the controls easy to operate.

You select game variations and skill levels either by pressing keypad buttons on the console or by manipulating the hand controller. That's a convenient setup; it lets you change programs from a chair, without having to get up to go to the console.

The *Astrocade* is the only machine whose instructions don't recommend shutting off the power before changing game cartridges; that makes the awkward location of the power switch, on the rear panel, much less of an inconvenience. You can unplug the hand controllers for easy replacement. If you buy two additional controllers ($40 a pair), you can accommodate four players in some of the games.

A handy compartment in the machine can hold up to 15 cartridges, though not their instruction booklets. Alternatively, you can store the hand controllers there.

The *Astrocade* has three games plus a simple calculator built into the console. In one of the games, somewhat as in the arcade game *Tron*, you maneuver a constantly moving dot across the screen; the dot leaves a trail that can't be crossed. Another built-in game is a doodle pad for up to four people; the hand controller lets you adjust the color and thickness of the "pen" stroke, which you then guide across the screen.

Here is a rundown on the eight *Astrocade* games the panelists tested:

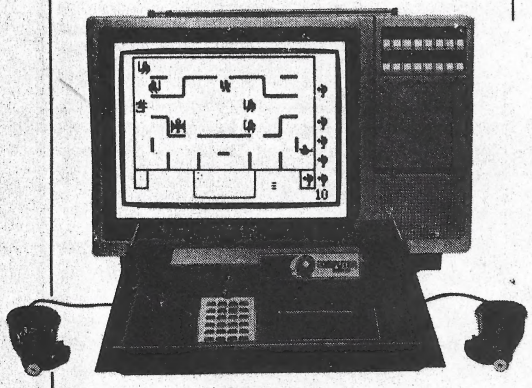
Amazing Maze/Tic-Tac-Toe ($25). You race through a maze against the computer or another player. The maze changes every time you play, and you can select from among three skill levels. Maze lovers may like the game. *Tic-Tac-Toe* is the familiar old game, but you play on the TV screen against the machine, rather than against another player.

Bally Pin ($30). Our panelists thought it a pretty good simulation of a pinball machine. It includes electronic "flippers," scoring bonuses, and the like.

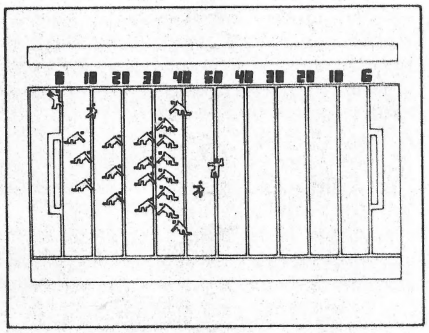
Football ($30). The plays are quite realistic; the offense can run, pass, or kick, and the defense tries to tackle the ball-carrier or intercept a pass. Up to four players can compete on two teams. Sound effects include fanfares and cheers.

Galactic Invasion ($30). Similar to the arcade games *Galaxian* and *Space Invaders*, this presents hordes of alien ships hovering in formation above your missile launcher. Intermittently, they peel off and dive at you singly or in groups, and you must either avoid them or destroy them. Our panelists found the game fun.

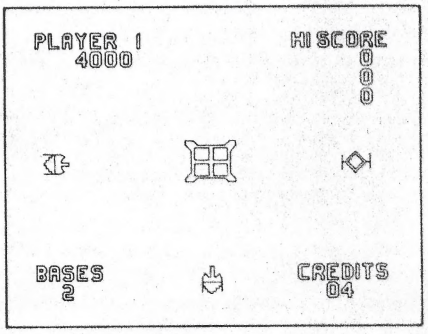
Incredible Wizard ($35). This was the panelists' clear favorite of all the games they tested. An adaptation of the arcade game *Wizard of Wor*, it pits your arrow-shooting hunter against a variety of unfriendly creatures roaming a maze. As soon as you clear the maze, a new and more difficult one appears. A "radar" screen shows the locations of invisible enemies. Two players can team up against the



***Astrocade's* pistol-grip controllers were easy to use. In *Incredible Wizard*, an archer takes aim at a variety of unfriendly creatures, both visible and invisible, in a maze.**



***Football:* The instructions say: "Complete a pass up the middle for a first down," attempt an end run or "razzle dazzle."**



***Space Fortress:* "You're being attacked by alien ships from all directions. You destroy some—but they keep coming faster. . . ."**

creatures, but direct hits are scored individually. The two archers can even accidentally shoot each other.

Space Fortress ($30). Your base is attacked randomly from all sides by alien ships. Occasionally, a kamikaze ship zips on-screen. The game includes unusually colorful explosion effects, as well as action that gets faster and faster.

Tornado Baseball/Tennis/Handball/Hockey ($30). The baseball version is reasonably good. You control the pitching and the batting, but you can't control the fielders individually. The other sports games are no better or worse than most competing versions. A couple of panelists loved this cartridge, a couple hated it, and most were lukewarm.

280 ZZZap/Dodgem ($25). Our panelists found this car-race game unrealistic, uninspired, and difficult to control.

Our testers also checked out an additional cartridge that was not evaluated by our panelists:

Bally Basic (included with *Astrocade* machine) is an introduction to a stilted version of the computer language "Basic." But the keypad on the machine isn't well suited for the cartridge. Consider it only as a crude introduction to computer programming.